

REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, maintained the restriction (notwithstanding Applicant's traversal of same) and withdrew claims 1-13 from consideration. In this regard, the Office Action stated that there is a "need for two entirely different fields of a search." Accordingly, based on this admission by the Examiner, should Applicants file a divisional application to pursue claims 1-13, Applicants expect NO art from the present fields of search to be cited as relevant against claims 1-13. If, upon further consideration, the Examiner believes that art from the present fields of search will be relevant to claims 1-13, then the Examiner is requested to withdrawn the restriction requirement and consider claims 1-13 in the examination of this application.

The Office Action rejected claims 14-20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Applicants' Admitted Prior Art in view of U.S. Patent 6,534,858 to Akram. Claim 14 has been amended, and claims 21-25 are newly added to this application. Support for amended claim 14 can be found at least on pages 5-7 of the application and FIGS. 4A-7. Accordingly, Applicants submit that no new matter has been added to this application by the amendment to claim 14. For at least the reasons set forth below, Applicants respectfully request that the Examiner withdraw the rejections.

Rejections Under 35 U.S.C. 103(a) of Claims 14-20

Claims 14-20 were tentatively rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Applicants' Admitted Prior Art (citing FIGS.1-2, page1-2) in view of Akram et al (USPN 6534858, hereinafter "Akram"). Claim 14 is an independent claim, from which claims 15-20 depend. Applicants assert that claim 14 is patentable for at least the reasons discussed below, and therefore for at least the same reasons claims 15-20 are patentable.

The Examiner alleges that

With respect to claim 14, Applicant Admitted Prior Art discloses an integrated circuit chip package comprising:

- an integrated circuit chip (12) attached to a substrate (10);
- a dam (14) surrounding said integrated circuit chip (12); and
- an encapsulation material (16) coating said integrated circuit chip (12) and all of said substrate (10) within said dam (14).

Applicant Admitted Prior Art fails to disclose a stress buffering material covering at least one corners of said integrated circuit chip. However, Akram et al discloses a stress buffering material (626) covering at least one corner of said integrated circuit chip (fig. 8, col. 6, lines 15-18). Therefore, at the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the device of Applicant Admitted Prior Art with the stress buffering material covering at least one corners of said integrated circuit chip because as taught by Akram et al, the stress buffering material would perform the function of sealing and protecting the semiconductor chip (col. 4, lines 11-13).

As amended, independent claim 14 recites:

- 14. An integrated circuit chip package comprising:
 - an integrated circuit chip attached to a substrate;
 - a stress buffering material only covering corners of said integrated circuit chip;*
- and
- an encapsulation material coating said integrated circuit chip and all of a portion of said substrate.

(*Emphasis Added*). Applicants submit that independent claim 14 defines over the cited art for at least the reason that the cited art fails to disclose those features emphasized above.

It is clear that the integrated circuit chip package defined in claim 14 comprises a stress buffering material only covering corners of said integrated circuit chip. Also, the stress buffering material decreases the global stress on the die corners to a small local stress (see page 6, lines 12-13).

However, as disclosed by "Akram" in column 5, lines 57-60 and FIGS. 6-8: "*A barrier glob top 626 is applied to surround a periphery of the semiconductor chip 602, forming a recess or cavity 628. A heat-dissipating glob top 630 is disposed within recess.*" Clearly, the barrier glob top in "Akram" is formed around the entire periphery of the semiconductor chip (as described and further illustrated by figs. 4-8). Thus the barrier glob top in "Akram" obstructs heat-dissipating more than the stress buffering material of the claimed invention because the barrier glob top exists around periphery of the semiconductor chip and

this causes the heat sink ability of heat-dissipating glob top to be decreased. On the other hand, the stress buffering material of the claimed invention, only covering corners of said integrated circuit chip, provides better heat sink properties of the encapsulation material. "Akram" dose not anticipate claim 14 because it dose not teach or suggest a stress buffering material only cover corners of the integrated circuit chip, as specifically recited in claim 14.

As "Akram" dose not teach or suggest all the limitations recited in claim 14, claim 14 is allowable over the cited reference. As claims 15-20 are dependent claims that incorporate the limitation of claim 14, these claims define over Akram for at least the same reason.

Newly added claims 21-25

Upon entry of the amendments in this response, Applicants have added claims 21-25 and respectfully assert that these claims are in condition for allowance. Support for newly added claims 21-25 can be found, for example, on pages 5-7 and FIGS. 4A-7 of the present application. Specifically, the limitation "a stress buffering material having a similar coefficient of thermal expansion with said die" can be found on page 6, lines 9-10. Therefore, no new matter is introduced to the application by this amendment.

Newly added claim 21 recites:

21. An integrated circuit chip package comprising:
a die;
a stress buffering material having a similar coefficient of thermal expansion with said die, covering at least one corners of said die; and
an encapsulation material covering said die and said stress buffering material.

(Emphasis Added)

Applicants respectfully assert that the cited reference is legally deficient for the purpose of rendering claim 21 unpatentable. Specifically, Applicants assert that the reference does not teach or reasonably suggest

at least the features/limitation emphasized here in claim 21. For example, "Akram" only discloses that the barrier glob top is selected for low moisture permeability, low thermal coefficient of expansion, and good adhesion and sealing property (column 4, lines 13-17). Therefore, Applicants respectfully asserts that claim 21 is in condition for allowance.

Insofar as claims 22-25 depend from new claim 21, these claims are also allowable at least by virtue of their dependency.

No fee is believed to be due in connection with this amendment and response. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,



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